

REMARKS

Claims 1-38 are pending. Claim 1 is amended. Claims 2-38 remain unchanged.

Claims 6, 8-15, 21-25, 28, and 32-35 were previously withdrawn from consideration.

Claims 6 and 8-15 are directed to a non-elected species. Claims 21-25, 28, and 32-35 are directed to a non-elected invention.

Claims 1-5, 7, 16-20, 26-27, 29-31, and 36-38 stand rejected.

THE AMENDMENT

Claim 1 has been amended to correct a typographical error. The term "adopted" has been corrected to read "adapted."

The amendment corrects a typographical error and does not change the substance of the claim. No new matter has been added.

REJECTION UNDER 35 U.S.C. §102(e) OR 35 U.S.C. §103(a) OVER MOON

Claims 1-5, 7, 16-20, 26-27, 29-31, and 36-38 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,245,227 to Moon et al. (hereinafter "Moon"), or in the alternative under 35 U.S.C. §103(a) as being obvious over Moon.

The Office Action further states that a difference exists between the claimed invention as the Moon disclosure, then such differences reside in optimizing the elements of Moon, and further that it would have been obvious to optimize the elements of Moon to enhance separation.

Anticipation of a claimed invention by a prior art reference under 35 U.S.C. §102 requires the presence in a single prior art reference of each and every element of a claimed invention. Applicants respectfully submit that the cited reference to Moon fails to disclose each and every element of the presently claimed devices.

To establish a *prima facie* case of obviousness, the Examiner must present prior art references which, when combined or modified, teach or suggest all the claim limitations. However, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings in order to teach or suggest all the claim limitations. In addition, there must be a reasonable likelihood of success, viewed in the light of the prior art. *Brown & Williamson Tobacco Corp. v. Phillip Morris Inc.* 229 F.3d 1120, 56 USPQ2d 1456, 1459 (CAFC 2000) citing *In re Dow Chem.*, 837 F2d 469, 473, 5 USPQ2d

1529, 1531 (CAFC 1988). Furthermore, the teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not in Applicant's disclosure. *In re Vaeck*, 947 F2d 488, 20 USPQ2d 1438 (CAFC 1991). In the instant case, the Examiner is relying upon a single reference, in combination with the knowledge generally available to one of ordinary skill in the art. Based upon the foregoing requirements, Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness.

Independent Claims 1, 26, 27, 29, and 36, all require that the microfluidic device have a gradient-generation means for generating a gradient of a selected mobile-phase component in a mobile phase or a mobile-phase source that provides a mobile phase that exhibits a gradient of a selected mobile-phase.

Moon describes an integrated monolithic microfabricated electrospray nozzle (an example of which is shown in Fig. 2), a liquid chromatography system (an example of which is shown in Fig. 25A), and an integrated electrospray/liquid chromatography system (Fig. 47). While Moon does describe liquid chromatography, there is no discussion of gradient liquid chromatography or of a system that provides for or uses a gradient mobile-phase component.

The Moon liquid chromatography devices in Fig. 25A, as well as Figs. 30-32, all have a separation channel having separation posts. However, there is no teaching or suggestion of a gradient-generation means. The discussion at col. 30, line 5 describes the use of channels having no posts, in order to facilitate mixing. Col. 30, lines 25-35 describes the use of multiple reservoirs to enable different fluids to be introduced into the separation channel. However, as noted above, none of these descriptions teaches or suggests a gradient-generation means as is recited in the pending claims.

Col. 30, line 64 to col. 31, line 2 (Fig. 35) describes the use of an upstream channel and posts for solid-phase extraction, as well as a waste reservoir. In the context of this embodiment, at col. 30, lines 27-35, Moon mentions that additional reservoirs downstream of the waste reservoir and upstream of the separation posts, that contain gradient elution of analytes in one reservoir and a diluent in the other reservoir. However, this embodiment does not teach or suggest a gradient-generation means as is recited in the pending claims.

In conclusion, Applicants submit that the cited Moon reference does not teach the invention as presently claimed. Applicants further submit that the cited Moon reference, whether viewed alone or in combination with the knowledge generally available to one of

ordinary skill in the art, does not suggest the invention as presently claimed. Accordingly, Applicants submit that the invention is patentable under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) and respectfully request reconsideration and withdrawal of these rejections.

CONCLUSION

For all of the above reasons, it is submitted that the pending claims define an invention that is patentable over the art. As the application should now be in condition for allowance, a prompt indication to that effect would be appreciated. If the Examiner has any questions concerning this communication, he is welcome to contact Michael Beck at (650) 485-3864.

Respectfully submitted,

By: Shelley P. Eberle
Shelley P. Eberle
Registration No. 31,411

Michael Beck, Esq.
AGILENT TECHNOLOGIES, Incorporated
Intellectual Property Administration,
Legal Department, MS DL429
P.O. Box 7599
Loveland, Colorado 80537-0599
(650) 485-3864

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